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WESTERN DISTRICT OF TEXAS  
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QCUE, INC.,

Plaintiff,

-vs-

Case No. A-12-CA-484-SS

DIGONEX TECHNOLOGIES, INC.,  
Defendant.

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**MARKMAN ORDER**

BE IT REMEMBERED on this day the Court reviewed the file in the above-styled cause, and specifically Defendant Digonex Technologies, Inc.'s Opening *Markman* Brief [#44], Plaintiff Qcue, Inc.'s Opening *Markman* Brief [#45], Digonex's Responsive *Markman* Brief [#46], Qcue's Responsive *Markman* Brief [#47] and Supplement [#48], Digonex's Post-*Markman* Opening Brief [#55], Qcue's Post-*Markman* Opening Brief [#56], Qcue's Post-*Markman* Response Brief [#58], and Digonex's Post-*Markman* Response Brief [#60]; the Report and Recommendation of the Special Master [#65]; Digonex's Objections [#66], and Qcue's Objections [#67]. Having reviewed the documents, the governing law, the arguments of the parties at the *Markman* hearing, and the file as a whole, the Court now enters the following opinion and orders.



## Background

Digonex accuses Qcue of infringing two of its patents, United States Patent Numbers 8,095,424 (the '424 Patent) and 8,112,303 (the '303 Patent).<sup>1</sup> The parties disagree about the meaning of numerous terms used in the claims of both patents, and thus the Court was called upon to conduct a *Markman* hearing and construe the claims. The Court, through Special Master Karl Bayer, held a brief technical tutorial on May 13, 2013, and a *Markman* hearing on May 14, 2013. Following the *Markman* hearing, the parties submitted additional briefing. The Special Master issued his Report and Recommendation on claim construction on August 15, 2013. To the extent the parties have made specific objections to the Special Master's factual findings or legal conclusions, they are entitled to de novo review of those findings and conclusions. FED. R. CIV. P. 53(f).

The parties are competitors in the world of dynamic pricing products. The systems they design and sell are used to maximize profit from the sale of items such as tickets to activities such as sporting events, concerts, and shows. To accomplish this objective, the systems generally adjust the price of each ticket dynamically in response to certain variables. The goal is to sell each ticket (or other item) for the maximum price customers are willing to pay at any given time.

The '424 Patent is entitled "Dynamic Pricing of Items Based on Sales Criteria." Based on the summary and background, the patent appears to be an attempt to recapture digital music pirates as customers by offering them a legal alternative to peer-to-peer sharing programs like the defunct Napster. The program would offer songs for sale at dynamically adjusted prices, with songs rising or falling in price based on popularity and other relevant considerations—essentially an iTunes store

<sup>1</sup> Although Digonex is asserting the patents-in-suit, Digonex is styled as the Defendant because the patent infringement suit was consolidated into this cause number, which began as a copyright infringement action filed by Qcue, after the patent suit was transferred here from the Southern District of Indiana.

designed to milk as much profit from each consumer as possible. As is typical in patent litigation, however, the inventor's vision of the patent has played virtually no role in this lawsuit. Instead, the asserted claims cover the general method of "grouping" "media items," "pricing" different groups differently based on various "sales criteria," and "receiving orders" for the items using a network-based computer system.

The '303 Patent, entitled "Digital Online Exchange for Pricing Items to Exhaust Inventory by an Expiration Time," is a continuation-in-part of the '424 Patent. Most of the specification is identical to the '424 Patent. The asserted claims disclose the basic components of a dynamic pricing system, including a "pricing server" with a "processor" configured to do various things, all with the goal of "selling out" the vendor's limited inventory "at or near" a chosen "expiration time."

### **Analysis**

#### **I. Claim Construction—Legal Standard**

When construing claims, courts begin with "an examination of the intrinsic evidence, i.e., the claims, the rest of the specification and, if in evidence, the prosecution history." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *see also Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1327 (Fed. Cir. 2001).

The words in the claims themselves are of primary importance in the analysis, as the claim language in a patent defines the scope of the invention. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The words of a claim "are generally given their ordinary and customary meaning." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of

the patent application.”<sup>2</sup> *Id.* at 1313. The inquiry into how a person of ordinary skill in the art understands a claim term provides an “objective baseline” from which to begin claim interpretation. *Id.* The person of ordinary skill in the art is understood to read a claim term not only in the context of the particular claim in which the term appears, but in the context of the entire patent, including the specification; thus, both the plain language of the claims and the context in which the various terms appear “provide substantial guidance as to the meaning of particular claim terms.” *Id.* at 1314.

The specification also plays a significant role in the analysis. *Id.* at 1315. The Federal Circuit has repeatedly reaffirmed the principle that the specification “is always highly relevant . . . Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In interpreting the effect the specification has on the claim limitations, however, courts must pay special attention to the admonition that one looks “to the specification to ascertain the meaning of the claim term as it is used by the inventor in the context of the entirety of his invention, and not merely to limit a claim term.” *Interactive Gift*, 256 F.3d at 1332 (internal quotation marks and citations omitted).

The final form of intrinsic evidence the Court may consider is the prosecution history. Although the prosecution history “represents an ongoing negotiation between the PTO and the applicant” and therefore “often lacks the clarity of the specification and thus is less useful for claim construction purposes,” it can nonetheless “often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the

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<sup>2</sup> This hypothetical person is now commonly referred to simply as an “ordinarily skilled artisan.” E.g., *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1365–66 (Fed. Cir. 2013).

invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317.

Aside from the intrinsic evidence, the Court may also consult “extrinsic evidence,” which is “all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Id.* While extrinsic evidence “can shed useful light on the relevant art,” the Federal Circuit has explained it is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Id.* at 1317 (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). Extrinsic evidence in the form of expert testimony may be useful to a court for “a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* at 1318. However, conclusory, unsupported assertions by an expert as to the definition of a claim term are not useful, and should be discounted. *Id.* In general, extrinsic evidence is considered “less reliable than the patent and its prosecution history in determining how to read claim terms,” although it may be helpful. *Id.*

The purpose of claim construction is to “‘determin[e] the meaning and scope of the patent claims asserted to be infringed.’” *02 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996)). Thus, “[w]hen the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.” *Id.* However, “district courts are not (and should not be) required to construe *every* limitation present in a patent’s

asserted claims.” *Id.* For example, no construction is required if the requested construction would be “an exercise in redundancy,” or if “the disputed issue is the proper application of a claim term to an accused process rather the scope of the term.” *Id.* (quoting *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997); *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1349 (Fed. Cir. 2001)).

## **II. Application**

### **A. Special Master’s Recommendations**

The Special Master’s recommended constructions are as follows

<b>Claim Term</b>	<b>Recommended Construction</b>
“pricing server” (’303 Patent, Claims 1, 5, 8)	One or more computers configured to provide changing prices for products or services.
“processor is configured to control a rate of sale in order to sell out the items available in a limited quantity at or near [the, an] expiration time” (’303 Patent, Claims 1, 5, 8)	Plain meaning given individual definitions of component terms.
“control a rate of sale” (’303 Patent, Claims 1, 5, 8)	Plain meaning.
“sell out” (’303 Patent, Claims 1, 5, 8)	Plain meaning.
“at or near” (’303 Patent, Claims 1, 5, 8)	Indefinite.
“remaining inventory” (’303 Patent, Claims 1, 5, 8)	Plain meaning.
“time stamped data” (’303 Patent, Claims 3, 4)	Plain meaning.
“initial quantity” (’303 Patent, Claims 1, 8)	Plain meaning.

“the [first, second] pricing strategy is associated with one of ranking of sales volume for a media item in the [first, second] group as compared to all other media items, all other media items in the [first, second] group, and all other media items with the same artist” ('424 Patent, Claim 16)	The [first, second] pricing strategy is associated with ranking of sales volume for a media item in the [first, second] group as compared to one of all other media items, all other media items in the [first, second] group, or all other media items with the same artist.
“regrouping the plurality of items . . . based on the updated sales criteria” ('424 Patent, Claims 1, 16)	Rearranging the previously grouped media items based on the updated sales criteria.
“grouping by a processor” ('424 Patent, Claims 15, 16, 18)	Sorting items into groups where a processor performs the sorting.
“grouping using a processor” ('424 Patent, Claim 1)	Sorting items into groups where a processor performs the sorting.
“clients” ('424 Patent, Claims 1, 16)	User computers or other electronic devices that can be used to communicate over a computer network.
“a processor” / “the processor” ('424 Patent, Claims 1, 15, 16, 18)	Indefinite.
“receiving one or more orders” ('424 Patent, Claims 1, 16)	Plain meaning.

With respect to the Special Master’s constructions the parties have not objected to, the Court perceives no error (plain or otherwise) in those constructions and therefore accepts the Special Master’s recommendations as to those claim terms without further comment. These terms are: “processor is configured to control a rate of sale in order to sell out the items available in a limited quantity at or near [the, an] expiration time”; “sell out”; “remaining inventory”; “time stamped data”; “initial quantity”; “the [first, second] pricing strategy is associated with one of ranking of sales volume for a media item in the [first, second] group as compared to all other media items, all other media items in the [first, second] group, and all other media items with the same artist”; “regrouping the plurality of items . . . based on the updated sales criteria”; and “grouping by a processor.”

## B. Objections

The Court now turns to the parties' specific objections.

### 1. Pricing server

Qcue objects to the Special Master's recommendation regarding the term "pricing server," which adopts Digonex's proposed construction: "one or more computers configured to provide changing prices for products or services." Qcue argues a pricing server is "merely comprised of generic computerized component parts," and therefore should instead be construed as "a server having a memory, a processor, and a clock."

The Court agrees with the Special Master's construction for several reasons. First, the parties' disagreement here is a strange one, because their proposed constructions are not necessarily at odds with each other. Digonex sought to define a pricing server by what it *does*, whereas Qcue sought to define a pricing server by what it *is*, i.e., what its constituent parts are. The two constructions are not mutually exclusive. As Claim 1 clearly states, "a pricing server includ[es] a memory, a processor and a clock." '303 Patent col.38 ll.62–63. But a pricing server, despite having the generic hardware components found in any server, is also something more than a generic computer or server, otherwise it would not have been called a *pricing* server. Qcue's proposed construction would impermissibly read "pricing" out of the claim. *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("[C]laims are interpreted with an eye toward giving effect to all terms in the claim.").

Second, Qcue's construction offers absolutely no help to the jury, which, after plugging Qcue's definition in, would be left with the following meaningless tautology: "a server having a memory, a processor, and a clock including a memory, a processor and a clock." Third, Digonex's expert, Dr. Shamos, testified an ordinarily skilled artisan would understand all servers to include

those three components, and thus understand a pricing server to be something more than just a server: “fundamentally, it’s a server that prices.” Shamos Depo., at JA1415; Shamos Decl., at JA1320, ¶¶ 24–25. While Dr. Shamos’s testimony was obviously “generated at the time of and for the purpose of litigation” and is therefore less persuasive than the intrinsic evidence, Qcue offered no competing evidence to suggest an ordinarily skilled artisan would disagree with Dr. Shamos. *Phillips*, 415 F.3d at 1318.

Accordingly, Qcue’s objections to the Special Master’s recommended construction are OVERRULED.

## 2. Control a rate of sale

Qcue objects to the Special Master’s recommendation the term “control a rate of sale” be given its plain meaning, arguing instead for the following construction: “raise a price to slow the rate of sale and lower a price to speed the rate of sale.” Qcue’s proposed construction captures only one embodiment described in the specification. ’303 Patent col.35 ll.7–9 (“In one embodiment, the system raises the price to slow the rate of sale and lowers it to speed the rate of sale.”). As the Federal Circuit has explained, “import[ing] limitations onto the claim from the specification . . . is fraught with danger,” and therefore is “generally not permitted absent a clear disclosure that the patentee intended the claims to be limited as shown.” *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333–34 (Fed. Cir. 2007) (internal quotation marks omitted). There is no such “clear disclosure” here. Moreover, the claims themselves specify *how* the rate of sale is controlled, and thus Qcue’s explanation is not necessary. See ’303 Patent, col.39 ll.13–24 (Claim 1, noting the processor is configured to increase or decrease the price under explicitly stated conditions); *id.* col.40 ll.1–10 (same for Claim 5); *id.* col.40 ll.38–49 (same for Claim 8). Qcue’s proposed construction would

render these six paragraphs of claim language surplusage, and is therefore unpersuasive. *See Bicon*, 441 F.3d at 950.

Accordingly, Qcue’s objections to the Special Master’s recommended construction are OVERRULED.

### **3. Clients**

Qcue objects to the Special Master’s recommended construction of the term “clients” as “user computers or other electronic devices that can be used to communicate over a computer network,” because the Special Master’s construction does not limit clients to devices “that receive media items.” Importantly, the claims themselves say nothing about clients having to receive media items. Qcue’s proposal is instead drawn primarily from language in the specification describing Figure 2 of the ’424 Patent. But Figure 2 is explicitly described as “one of many embodiments.” ’424 Patent col.7 ll.12. Qcue’s proposal commits “one of the cardinal sins of patent law—reading a limitation from the written description into the claims.” *Phillips*, 415 F.3d at 1320 (internal quotation marks omitted).

While the specification is unquestionably directed primarily at the digital distribution of files, meaning essentially any computer or similar device could receive the items, this focus is not exclusive. The specification contemplates the system being “used to dynamically price other types of items,” including non-digital items such as CDs, DVDs, and t-shirts. ’424 Patent col.38 ll.12–16; *id.* col.4 ll.15–17 (noting the system “can be adapted to dynamically price goods and/or services, such as electronics and repair services”); *id.* col.4 ll.17–20 (other examples of goods include “household products, jewelry, [and] furniture”). Recognizing it is impossible to digitally deliver these physical goods, the specification notes the items can be “physically delivered, for example by

a postal carrier.” *Id.* col.4 l.24. Given the specification’s explicit discussion of non-digital delivery, and the claims’ silence with respect to digital receipt, the Special Master was correct to conclude the term “clients” need not contain any limitation requiring receipt of the media items by the devices themselves.

Accordingly, Qcue’s objections to the Special Master’s recommended construction are OVERRULED.

#### **4. Receiving one or more orders**

Qcue objects to the Special Master’s recommendation the term “receiving one or more orders” be given its plain meaning, arguing instead for the construction “receiving a request to supply.” The parties’ arguments on this topic were brief, with neither side presenting a compelling case for its chosen construction. Three factors convince the Court to lean in favor of the Special Master’s construction, however. First, Qcue’s proposal excludes the notion of plural orders by construing “one or more orders” as a single “request to supply.” This would effectively rewrite the claim as allowing receipt of only one order. Second, this claim term is simply not difficult to understand based on the “ordinary and customary meaning” of the words used. *See Phillips*, 415 F.3d at 1312 (internal quotation marks omitted). Third, to the extent the parties have any real disagreement about this term, their disagreement is about infringement, not claim construction, and thus need not be resolved at this stage.

Accordingly, Qcue’s objections to the Special Master’s recommended construction are OVERRULED.

## 5. Grouping using a processor

Digonex objects to the Special Master’s recommendation the term “grouping using a processor” be given the same meaning as the similar phrase “grouping by a processor.” Digonex can point to no language in the specification illuminating any difference between these two terms. Instead, Digonex relies on (1) the presumption different terms have different meanings, *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000), and (2) the testimony of Dr. Shamos.

As issued, Claim 1 of the ’424 Patent recites “grouping *using* a processor” whereas Claim 16 recites “grouping *by* a processor.” The prosecution history reveals the patentee intended both claims to be amended from the original “using” language to the new “by” language. During the patent’s prosecution, the Examiner rejected Claim 1 (among others) in light of a reference called Hartman, because the Examiner believed Hartman read on the claims despite the use of the “using a processor” language. ’424 Patent prosecution history, at JA740–41. In response, the patentee stated the following:

The Examiner and Primary Examiner suggested that replacing “using a processor” with “*by* a processor” in the grouping step would more specifically recite the Applicants’ intended limitation. Thus, claim 1 has been amended to recite that the grouping step is performed “*by* a processor” as suggested by the Examiners. Applicant believes that such amendment is non-narrowing as it merely states an inherent limitation of the grouping step was interpreted in light of the limitation. A similar amendment has been added to claim 16.

*Id.* at JA741. The Examiner subsequently agreed, stating Hartman disclosed “grouping using a processor” but not “grouping *by* a processor.” *Id.* at JA709–10. However, when the Examiner submitted his amendment, only one of the two claims was changed from “using” to “*by*.” The patentee’s statements show he believed “using” and “*by*” were essentially interchangeable. More

importantly, the patentee agreed to amend both instances of “using” to “by,” and submitted amended claim language reflecting these changes.

The Special Master correctly concluded, in light of the prosecution history, the Examiner’s failure to change Claim 1 to read “by” rather than “using” was a simple clerical error. The Court has the power “to correct obvious minor typographical and clerical errors in patents.” *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003). In *Novo*, for example, the Federal Circuit cited approvingly to *Lemelson v. General Mills, Inc.*, 968 F.2d 1202, 1203 & n.3 (Fed. Cir. 1992), in which the Federal Circuit added the word “toy” to the preamble of a claim because the patent prosecution suggested the word’s deletion was unintended. *Id.* The same is true here: the patentee and the Examiner clearly agreed during the prosecution to change both instances of “using” to “by,” but only one change made it into the issued patent. The fact this is a clerical error is confirmed by the absence of any distinction within the specification between “using” and “by,” which also explains Digonex’s exclusive reliance on expert testimony to support its current argument the terms mean different things. Digonex’s litigation argument is different than the patentee’s prosecution argument, and the prosecution history demonstrates the two claims were intended to use the same language (and thus mean the same thing). See *Gillespie v. Dywidag Sys. Int’l, USA*, 501 F.3d 1285, 1291 (Fed. Cir. 2007) (patentee must be “held to what he declare[d] during the prosecution of his patent”). The Special Master was thus correct to give both terms the same construction.

Accordingly, Digonex’s objections to the Special Master’s recommended construction are  
OVERRULED.

**6. At or near**

Digonex objects to the Special Master’s recommendation the term “at or near” be held indefinite. This term is used only in the ’303 Patent. It appears primarily in the claims, though it is used in passing one time in the specification, with no further discussion of its meaning. Claim 1 is representative, and describes a dynamic pricing system selling items available in a limited quantity, wherein the processor is configured to control a rate of sale in order to sell out the items available in a limited quantity *at or near* the expiration time and to price the items available in a limited quantity so as to deplete an inventory of the items available in a limited quantity *at or near* the expiration time based in part by accessing the memory to retrieve the data indicative of the initial quantity, the current remaining quantity and the expiration time and accessing the clock.

’303 Patent col.39 ll.4–12 (emphasis added).

Every patent’s specification must “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(b). According to the Federal Circuit, “the purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee’s right to exclude.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). This requirement “does not compel absolute clarity,” however, and thus a claim is only indefinite if it is “not amenable to construction or [is] insolubly ambiguous.” *Id.* (internal quotation marks omitted). In light of these guiding principles, the Court concludes the Special Master correctly determined the term “at or near” cannot be given “any reasonable meaning,” and is therefore indefinite. *Id.*

Because the specification is silent as to the meaning of “at or near,” the only evidence in the record is extrinsic: namely, the various forms of testimony from Digonex’s expert, Dr. Shamos.<sup>3</sup> According to Dr. Shamos, an ordinarily skilled artisan would understand the meaning of the phrase “at or near” to be “contextual.” Shamos Decl., at JA1322 ¶ 28. “It would be readily apparent to a person of ordinary skill in the art that ‘at or near’ means ‘approximately,’ or ‘close.’” *Id.*; *see also id.* (ordinarily skilled artisan would understand “at or near” to mean “‘close in time,’ relative to the time scale under consideration”). Dr. Shamos has also stated “at or near” can mean *after* the expiration time. *Id.* Unfortunately, Dr. Shamos testified the opposite was true during his deposition, stating “‘At or near’ is not open in both directions. ‘At or near’ can’t extend past the expiration time.” Shamos Depo., at JA1474–75. At the *Markman* hearing, Dr. Shamos offered a slightly different explanation: “You can sell out after the expiration time because all you have to do is be at or near. The expiration time is the desired target. Now, there are certain kinds of events where you can’t sell out after the expiration time.” *Markman* Tr., at JA 1701. In short, “at or near” means some amount of time before the expiration time, and sometimes some amount of time after it as well.

Dr. Shamos discussed the issue in more detail in his deposition. He provided a number of possible examples of “at or near,” suggesting in certain contexts “‘at or near’ wouldn’t be less than a month before the [expiration time],” whereas in others it “might be much closer to the [expiration time] than a month.” Shamos Depo., at JA1467. In another context, Dr. Shamos agreed “at or near” might mean “a few hours,” or “a few minutes.” *Id.* at JA1469. Addressing yet another example, Dr.

<sup>3</sup> Digonex’s argument Qcue failed to meet its evidentiary burden because it did not produce any evidence is frivolous. Qcue’s indefiniteness arguments were not mere attorney argument, but were based on the expert testimony of Dr. Shamos. The fact Dr. Shamos was Digonex’s expert rather than Qcue’s is perhaps ironic, but does not prevent Qcue from using Dr. Shamos’s testimony as evidence in support of its arguments.

Shamos stated two months “could be” “at or near” the expiration time, but he could not be sure without knowing all the details of the sale. *Id.* at JA1471. Moving to more theoretical examples, Dr. Shamos was asked whether a scenario in which the items sell out “halfway through” the sales period—in other words, halfway between the starting time of the sale and the expiration time—could be “at or near.” *Id.* at JA1473. He answered: “I don’t know. I doubt it.” *Id.* Dr. Shamos put a finer point on his argument in this exchange:

**Q:** How would a potential competitor who is reading the ’303 Patent be able to determine what that boundary [of “at or near”] is?

**A [Dr. Shamos]:** Because if he’s a native speaker of the English language, then he will understand what “at or near” means.

**Q:** Well --

**A [Dr. Shamos]:** “At or near” means “at or near.”

*Id.* at JA1469.

As Dr. Shamos’s testimony reveals, the term “at or near” is insolubly ambiguous because it cannot be given any definite meaning. The very words Dr. Shamos uses to describe the term—approximately, close, close in time—are just synonyms for “near.” They provide no more information than the term itself. Digonex argues these “contextual” definitions are necessary because of “the vagaries of human behavior,” and an ordinarily skilled artisan could understand the term once the context was known. But the case Digonex cites to advance this argument, *Source Search Technologies, LLC v. LendingTree, LLC*, 588 F.3d 1063 (Fed. Cir. 2009), offers no support for its position.

In *Source Search*, the patent covered a method of purchasing “goods or services” over a network. *Id.* at 1068. The district court construed the term “goods or services” to mean “standardized articles of trade and performances of work for another.” *Id.* at 1075. LendingTree argued this

construction was indefinite, because an ordinarily skilled artisan would be unable to distinguish between “standard” and “non-standard” goods or services. *Id.* The Federal Circuit rejected this argument, concluding an ordinarily skilled artisan would know the relevant goods or services as soon as “the specific market or network is chosen.” *Id.* The court found the alternative, requiring the patent to “list every possible good or service,” would be unreasonable. *Id.*

Unlike the patent in *Source Search*, there is no indication an ordinarily skilled artisan will know what “at or near” means even after the relevant market and sales data are provided. The meaning of “at or near” is not just contextual in the sense it depends upon the peculiarities of the item being sold, it is contextual in the sense it depends upon the peculiarities of the person interpreting the words. One of Dr. Shamos’s examples at the *Markman* hearing was the statement he would meet someone “around [i.e., “at or near”] 7:00.” *Markman* Tr., at JA1702. As Dr. Shamos indicated, his guest would understand this could mean he would show up either before or after 7:00. *Id.* But the precise boundaries of when he *must* show up to comply—in essence, how “near” to 7:00 constitutes “near”—is impossible to state with any certainty. Every person meeting Dr. Shamos could have a different interpretation of what meeting “around 7:00” means. This is the essence of “insoluble ambiguity,” because an ordinarily skilled artisan cannot “understand the bounds of the claim when read in light of the specification.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1321 (Fed. Cir. 2003) (internal quotation marks omitted). This is doubly true where, as here, the specification says nothing at all about the actual bounds of the ambiguous term.

The term “at or near” does not “give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, e.g., competitors of the patent owner, can determine whether or not they infringe.” *All Dental Prodx, LLC v. Advantage Dental*

*Prods., Inc.*, 309 F.3d 774, 779–80 (Fed. Cir. 2002). Imagine a hypothetical competitor who wishes to design a similar but non-infringing system. Even if this inventor intends to design a system to intentionally sell out far enough in advance of the expiration time to avoid infringing the patent, the inventor has no reasonable way to implement such a design. Would a system designed to sell out all items halfway between the sale’s starting time and the chosen expiration time infringe? Dr. Shamos does not know, though he has his doubts. The boundaries of the term “at or near” are essentially whatever Digonex can convince a jury to find constitutes “at or near.” Any system designed by a competitor necessarily faces some litigation risk, because the inventor cannot say with any certainty how “near” is too “near” the expiration time. This may be a fine system for patent-litigation plaintiffs, but it is no system at all for the public. A patent which fails to “‘notify[] the public of the [scope of the] patentee’s right to exclude’” has failed to comply with § 112, and is indefinite. See *Honeywell Int’l, Inc. v. Int’l Trade Comm’n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003) (quoting *S3 Inc. v. nVIDIA Corp.*, 259 F.3d 1364, 1371–72 (Fed. Cir. 2001)).

Digonex argues the fact the parties have proposed constructions of the term “at or near” proves the term is “amenable to construction” and therefore not indefinite. Of course, read too literally, the Federal Circuit’s command requiring a claim to be “amenable to construction” can always be satisfied by a party or court pronouncing a particular construction as correct. But, as the parties’ proposals here demonstrate, a meaningless construction is no construction at all. Digonex proposed either the “plain meaning” of the term “at or near”—i.e., no construction—or “close in time.” Rewriting “near” to “close in time” does not construe anything, it merely shifts the debate from “how near is too near?” to “how close is too close?” Qcue’s unwieldy alternative proposal was “at or within a short time, such as within the last minute, but not substantially prior to.” Not only is

this construction totally unsupported by the specification and contrary to the expert testimony, it also introduces the equally ambiguous phrases “short time” and “substantially prior to.” A potential competitor would be no more capable of designing a system around any of these proposed constructions than around the term “at or near” itself.

Digonex identifies a number of cases in which the Federal Circuit found claim terms using “near” to be definite, but those cases are not inconsistent with the Special Master’s recommendation here. There certainly may be situations in which a potentially ambiguous term is made more concrete in practice; for example, the method claimed in *Source Search*, where the universe of “goods or services” was made apparent to any ordinarily skilled artisan once the relevant market was chosen. 588 F.3d at 1075. But all claims are not created equal, and the mere fact “near” has been used in other patents does not make the word any more meaningful in the context of the ’303 Patent. As Dr. Shamos so eloquently stated it, “at or near” does not mean anything other than “at or near.” The numerous tautologous constructions offered throughout the *Markman* process do nothing but prove this claim fails to adequately disclose the boundaries of the invention, and the Special Master correctly concluded such a claim is indefinite.

Accordingly, Digonex’s objections to the Special Master’s recommended construction are  
OVERRULED.

## **7. A processor / the processor**

Digonex objects to the Special Master’s recommendation the terms “a processor” and “the processor” be found indefinite. These terms are used in multiple claims in the ’424 Patent. The specification discloses only one processor—“the processor **110**”—but does state this processor “can be embodied in a form having more than one processing unit, such as a multi-processor

configuration, and should be understood to collectively refer to such configurations as well as a single-processor-based arrangement.” ’424 Patent col.4 ll.25–43. To highlight the various uses of the terms, Dr. Shamos constructed the following slightly altered version of Claim 1, which is exemplary. Each bracketed and numbered “A” refers to a use of “a processor,” while each bracketed and numbered “T” refers to a use of “the processor.” Claim 1 thus reads:

A method, comprising:

- [a] identifying a plurality of media items belonging to a category;
- [b] grouping using a processor [A1] a first plurality of the media items identified as belonging to the category into a first group based on a sales criteria associated with each of the plurality of media items;
- [c] pricing each media item in the first group according to a first pricing strategy using a processor [A2];
- [d] sending a first price determined by the processor [T1] using the first pricing strategy of a first item of the plurality of items in the first group for sale from a processor [A3] to one or more clients over a network;
- [e] grouping using a processor [A4] a second plurality of the media items identified as belonging to the category into a second group based on a sales criteria associated with each of the plurality of media item[s];
- [f] pricing each media item in the second group according to a second pricing strategy;
- [g] sending a second price determined by the processor [T2] using the second pricing strategy of a second item of the plurality of items in the second group for sale from a processor [A5] to one or more clients over a network;
- [h] wherein the value of the sales criteria associated with each of the media items in the first group is superior to the value of the sales criteria associated with each of the media items in the second group and wherein the first pricing strategy generates a higher price for media items in the first group than the price generate[d] for each media item in the second group by the second pricing strategy;

[i] receiving one or more orders for the second of the plurality of items in the second group at the second price from one or more of the clients;

[j] updating the sales criteria for the second of the plurality of items in the second group using the processor [T3], and

[k] regrouping the plurality of items into the first and second groups based on the updated sales criteria.

Shamos Decl., at JA1326–27 (bold emphasis added). Qcue argues these terms are indefinite, because there is no way to discern which of the five [A] processors correspond with which of the three [T] processors. Digonex, through Dr. Shamos’s testimony, claims a definite, unique mapping is possible.

Because the specification is of no help in understanding this mess, the parties focused exclusively on Dr. Shamos’s expert testimony. In his Declaration, Dr. Shamos proposed the following mapping, which he claimed would be “readily apparent to one of ordinary skill in the art”:

[T1]	“can only mean”	[A2]
[T2]	“can only mean”	[A2] <sup>4</sup>
[T3]	must map to	[A5]

Shamos Decl., at JA1327 ¶¶ 38–39.

In his deposition, Dr. Shamos added a few kinks to this seemingly simple map. First, Dr. Shamos explained [A1] and [A2] could be different processors, or the same processor. Shamos Depo., at JA1551. Using the map from Dr. Shamos’s Declaration, this means [T1] “can only mean” [A2], but [A2] can be the same as [A1], and therefore [T1] can *also* mean [A1]. Second, Dr. Shamos expanded on this idea and explained all the processors can be the same, because the patent contemplates a single-processor configuration. *Id.* at JA1553–54. Processor [A3] could therefore be

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<sup>4</sup> Dr. Shamos’s Declaration actually states [T2] maps to [T2]—in other words, maps to itself. However, Dr. Shamos’s testimony at the *Markman* hearing indicated he believes [T2] maps to [A2]. *Markman* Tr., at JA1750. The Court thus assumes the [T2]–[T2] mapping in Dr. Shamos’s Declaration is a typographical error, though admittedly an extremely unfortunate one which reflects poorly upon Dr. Shamos’s thoroughness given the importance of precision in this analysis.

the same or different than [A2] and [A1]. The same holds true for [A4] and [A5]. In Dr. Shamos's words, "[a]ny subset of these processor A1 and A5 could be the same." *Id.* at JA1559. Accordingly, any time a [T] processor maps to a particular [A] processor, the [A] processor could be any (or all) of [A1] through [A5], depending upon the configuration. Third, Dr. Shamos confirmed [T3] maps to [A5], though [T3] could refer to [A3] "if [A3] and [A5] are the same[,] but if they're not the same, then it refers only to [A5]." *Id.* at JA1557.<sup>5</sup>

At the *Markman* hearing, Dr. Shamos offered a third version of his explanation. Dr. Shamos confirmed his belief [T1] and [T2] both map to [A2]. *Markman* Tr., at JA1753. Departing from both his Declaration and his deposition testimony, Dr. Shamos next opined [T3] refers to "[A4], because that's the only one that groups the second plurality of items." *Id.* When confronted with the contradiction between his Declaration and his current testimony, Dr. Shamos claimed his Declaration contained a "typographical error." *Id.* at JA1754. Qcue's counsel, who was cross-examining Dr. Shamos at the time, was apparently perturbed by this explanation, because Dr. Shamos's Declaration not only states the correct processor is [A5], it specifically describes processor [A5]: "The only processor that is involved with the sales of items from the second group is processor [A5]." Shamos Decl., at JA1327, ¶ 38. Dr. Shamos testified this sentence is also erroneous, and should have stated "sales criteria" rather than "sales of items," and therefore referred to [A4] rather than [A5]. *Markman* Tr., at JA1754.

The patent claims are easy enough to understand and to implement (or avoid infringing) when a single processor is involved. Because this single processor takes the role of every [A] and every

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<sup>5</sup> Of course, because all the [A] processors are theoretically interchangeable, it seems [T3] could also map to any [A] processor. See *Markman* Tr., at JA1756 (Dr. Shamos testifying "[A1] through [A5] and [T1] through [T3] are all the same thing").

[T] processor, if the single processor performs all those steps, it infringes.<sup>6</sup> But when multiple processors are introduced—as the specification explicitly states they can be—the mapping falls to pieces. As Dr. Shamos’s three versions of his story reveal, even an ordinarily skilled artisan struggles to make any sense out of this multi-processor mess. There are an infinite number of possible configurations, and whether any particular configuration infringes is impossible to tell from the outset, belying any possibility of a single “unique mapping” the Court could give to the jury as an aid. *See id.* at JA1755 (Dr. Shamos testifying, “[the specification] makes it an artisan’s choice as to how one would implement the system. If one uses one processor, two, five, or fifty.”). Dr. Shamos’s ever-expanding vision of the boundaries of these claims fails to “notify[] the public of the [scope of the] patentee’s right to exclude.”” *See Honeywell Int’l*, 341 F.3d at 1338 (quoting *S3 Inc.*, 259 F.3d at 1371–72). For example, Dr. Shamos—an alleged expert of unchallenged qualifications, and the inventor of his own dynamic pricing patent—gave differing interpretations of these claim terms across his Declaration, deposition, and live testimony, variously tying processor [T3] to processors [A3], [A4], and [A5].<sup>7</sup> A potential infringer cannot be sure which functions must map to which

<sup>6</sup> Because the patent discloses a single-processor configuration, and because such a configuration would not be indefinite, the Court contemplated adopting a “saving” or “narrowing” construction of these terms to cover only single-processor configurations and thus save the validity of the patent. *See Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001) (“If a claim is insolubly ambiguous, and no narrowing construction can properly be adopted, we have held the claim indefinite.” (emphasis added)); *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996) (“Where there is an equal choice between a broader and a narrower meaning of a claim, and there is an enabling disclosure that indicates that the applicant is at least entitled to a claim having the narrower meaning, we consider the notice function of the claim to be best served by adopting the narrower meaning.”). However, Digonex did not ask for such a narrowing construction. More importantly, because the Federal Circuit has warned courts are not to “rewrite claims to preserve their validity,” the Court doubts any such “narrowing” construction would survive on appeal, as the Court would effectively rewrite all references to “a processor” to read “the processor.” *Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002).

<sup>7</sup> Given Dr. Shamos’s numerous inconsistencies in testifying in this case, the Special Master could easily have given his opinions about the ability of an ordinarily skilled artisan to understand the more complex claim terms at issue less weight. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 (1996) (recognizing “credibility judgments have to be made about the experts who testify in patent cases,” even though the claim construction question is reserved for the judge, not the jury); *see also id.* (“credibility determinations will be subsumed within the necessarily sophisticated

processors to avoid infringing in a multi-processor configuration, and cannot be sure any configuration she chooses will not result in a subsequent lawsuit with Dr. Shamos on the stand testifying about the infinite possible permutations of the claims.

These claims may simply have been artlessly drafted. Given a fresh slate, it may be possible to more accurately describe how a multi-processor system must function in order to fall within the ambit of the patent's claims. Unfortunately, neither the Special Master nor this Court can give the patentee the mulligan necessary to adequately disclose the scope of these claims. As a result, the Special Master was correct to conclude the terms "a processor" and "the processor" as used in the '424 Patent are indefinite.

Accordingly, Digonex's objections to the Special Master's recommended construction are OVERRULED.

### **Conclusion**

The parties' objections to the Special Master's recommended constructions are OVERRULED, and the Special Master's recommended constructions are ACCEPTED. Accordingly,

IT IS ORDERED that Defendant Digonex Technologies, Inc.'s Objections [#66] are OVERRULED;

IT IS FURTHER ORDERED that Plaintiff Qcue, Inc.'s Objections [#67] are OVERRULED;

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analysis of the [patent]"').

IT IS FINALLY ORDERED that the Report and Recommendation of the Special Master [#65] is ACCEPTED, and the Special Master's recommended constructions shall be the Court's constructions of the terms in the patents asserted in this case.

SIGNED this the 5<sup>th</sup> day of September 2013.

  
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SAM SPARKS  
UNITED STATES DISTRICT JUDGE